IN THE CLAIMS

1. (currently amended) A sterile calcium free low bicarbonate dialysis concentrate composition for continuous renal replacement therapy for use in the preparation of a dialysis solution comprising sodium chloride (NaCl), magnesium chloride (MgCl2), and a concentration of ~~bicarbonate~~ sodium bicarbonate (NaHCO3) sufficiently low so as to allow preparation of a sterile dialysis solution for continuous renal replacement therapy having a bicarbonate concentrateion of 5-~~30~~27.5 mmol/l.

2. (withdrawn) A kit for preparing a dialysis solution comprising the sterile dialysis concentrate composition of claim 1 and optionally instructions for its use.

3. (withdrawn) The kit of claim 2 further comprising sterile water sufficient to dilute the concentrate to a solution comprising Na 140±14 mmol/l, Mg 0.75±0.07 mmol/l, Cl 116.5 ± 11 mmol/l, and HCO3 25.0 ± 2.5 mmol/l.

4. (withdrawn) A method of preparing a sterile dialysis solution comprising diluting a sterile, dialysis concentrate composition of claim 1 in a sufficient amount of sterile water to prepare a dialysis solution comprising Na 140±14 mmol/l, Mg 0.75±0.07 mmol/l, Cl 116.5 ± 11 mmol/l, and HCO3 25.0 ± 2.5 mmol/l.

5. (withdrawn) A method for providing continuous renal replacement therapy to a patient comprising administering a sterile dialysis solution prepared according to the method of claim 4 in conjunction with a regional citrate anti-coagulant solution to a patient in need thereof.

6. (withdrawn) A method of preparing a sterile dialysis solution or infusate comprising diluting a sterile, dialysis concentrate composition of claim 1 in a sufficient amount of sterile water to prepare an infusate comprising Na 140±14 mmol/l, Mg 0.75±0.07 mmol/l, Cl 116.5 ± 11 mmol/l, and HCO3 25.0 ± 2.5 mmol/l.

7. (withdrawn) A method for treating acute renal failure in a critically ill patient without introducing calcium into the blood removed from the patient during dialysis comprising administering a sterile dialysis solution prepared according to the method of claim 6 in conjunction with a regional citrate anti-coagulant solution to a patient in need thereof.

8. (withdrawn) A method for providing hemofiltration to a patient comprising administering a sterile infusate prepared according to the method of claim 6 in conjunction with a regional citrate anti-coagulant solution to a patient in need thereof.

9. (previously presented) A sterile dialysis solution comprising the concentrate as claimed in claim 1 and a physiologically acceptable diluent.

10. (currently amended) ~~A~~ The sterile dialysis solution according to claim 9 comprising Na 140±14 mmol/l, Mg 0.75±0.07 mmol/l, Cl 116.5 ± 11 mmol/l, and HCO3 25.0 ± 2.5 mmol/l.

11. (withdrawn) A method of preparation of a sterile calcium-free bicarbonate concentrate according to claim 1 as an infusate for hemofiltration.

12. (withdrawn) A method of preparation of a sterile, calcium free bicarbonate concentrate according to claim 1 as a dialysis solution for use in metabolic acidosis.

13. (withdrawn) A method for correcting bicarbonate levels in a patient during dialysis comprising providing a dialysate mixture having a bicarbonate level sufficiently low so as to minimize the risk of metabolic complication in the patient, preferably between 20-30 mmol/litre, wherein should the patient's bicarbonate level drop below the preferred level, bicarbonate diffuses from the dialysate across the semipermable membrane to the patient to correct the problem, and wherein if there is an excess of bicarbonate in the blood of the patient then bicarbonate diffuses from the blood to the dialysate to correct the problem.

14. (currently amended) A sterile calcium free low bicarbonate concentrate containing magnesium, sodium, chloride, and a concentration of bicarbonate sufficiently low so as to minimize the risk of metabolic complications in a patient, and for continuous renal replacement therapies such as dialysis and hemofiltration, wherein the bicarbonate level in the resulting dialysis solution is within the range of about 5-~~30~~27.5 mmol/litre.

15. (withdrawn) A method for treating acute renal failure in a critically ill patient comprising dialyzing blood from the patient, without introducing calcium into the blood removed from the patient during dialysis, by using a sterile dialysis solution having a bicarbonate concentration within the range of about 5-30 mmol/litre.

16. (withdrawn) The use of claim 15 wherein the solution further comprises at least one of potassium, glucose, and ketones such as b hydroxy-butyrate.

17. (currently amended) A sterile calcium free dialysis concentrate, for use in the preparation of a dialysis solution for continuous renal replacement therapy, and having a bicarbonate level sufficiently low so as to minimize the risk of metabolic complications in a patient and comprising sodium chloride, magnesium chloride, and sodium bicarbonate at a concentration in the dialysis solution within the range of about 5-~~30~~27.5 mmol/litre.

18. (currently amended) A calcium free low bicarbonate sterile dialysis concentrate composition for use in the preparation of a sterile dialysis solution for continuous renal replacement therapy comprising sodium chloride, magnesium chloride and a concentration of sodium bicarbonate ($NaHCO_3$) sufficiently low so as to allow preparation of a sterile dialysis solution having a bicarbonate concentration of 5-~~30~~27.5 mmol/l.

19. (currently amended) A calcium free low bicarbonate sterile dialysis solution composition for continuous renal replacement therapy comprising sodium chloride, magnesium chloride and sodium bicarbonate ($NaHCO_3$) in the range of 5 to ~~30~~27.5 mmol/l.

20. (cancel) A composition according to Claim 19 wherein the sodium bicarbonate is in the range of 20-30 mmol/l.

21. (currently amended) ~~A~~ The composition according to Claim 19 wherein the sodium bicarbonate is 25 mmol/l $\pm$ 2.5 mmol/l.

22. (cancel) A composition according to Claim 19 further comprising sodium citrate added when the sodium bicarbonate is below 25 mmol/l.

23. (cancel) A composition according to Claim 22 wherein the sodium citrate is present in a level up to 20 mmol/l.